AUTHOR INDEX

Bachur, Jerry, Sources for the production and spectral control of deep ultraviolet radiation, 48
Barr, D., Resist possibilities and limitations in ion beam lithography, 142
Bartelt, J. L., Masked ion beam lithography for submicrometer device fabrication, 168
Blackwell, Richard J., Ion beam lithography system using a high brightness H_2^+ ion source, 152
Brors, Daniel L., X-ray mask fabrication, 111
Bruenger, W., Electron beam testing and its application to packaging modules for very large scale integrated (VLSI) chip arrays, 83
Chang, T. H. P., Electron beam testing and its application to packaging modules for very large scale integrated (VLSI) chip arrays, 83
Coane, P., Electron beam testing and its application to packaging modules for very large scale integrated (VLSI) chip arrays, 83
Cooper, R. S., Plasma sources for x-ray lithography, 136
Cukor, Peter, New microlithographic resists, 15
Feldman, M., Application of zone plates to alignment in x-ray lithography, 124
Fencil, C. R., X-ray lithography: technology for the 1980s, 100
Fox, T. R., Ion-channelling effects in scanning microscopy and ion beam writing with a 60 keV Ga^+ probe, 158
Fuls, E. N., X-ray lithography applied to the fabrication of 1 μm *n*-channel metal oxide semiconductor (NMOS) circuits, 113
Gonzales, A. J., Intralevel hybrid resist process with submicron capability, 24
Hanson, Gary R., Ion beam lithography system using a high brightness H_2^+ ion source, 152
Helbert, J. N., Intralevel hybrid resist process with submicron capability, 24
Hohn, F. J., Electron beam testing and its application to packaging modules for very large scale integrated (VLSI) chip arrays, 83
Hughes, G. P., X-ray lithography: technology for the 1980s, 100
Jones, S., X-ray lithography: fabrication of masks and very large scale integrated (VLSI) devices, 118
Jopson, Harriet, New microlithographic resists, 15
Kern, D., Electron beam testing and its application to packaging modules for very large scale integrated (VLSI) chip arrays, 83
Lai, Juey H., Application of methyl α-chloroacrylate copolymers as electron sensitive positive resists, 8
Lam, K., Ion-channelling effects in scanning microscopy and ion beam writing with a 60 keV Ga^+ probe, 158
Lamey, Patrick H., Jr., Manufacturing implications of multilevel resist processing, 59
Lee, Kang I., New microlithographic resists, 15
Levi-Setti, R., Ion-channelling effects in scanning microscopy and ion beam writing with a 60 keV Ga^+ probe, 158
Lindemann, M., Electron beam testing and its application to packaging modules for very large scale integrated (VLSI) chip arrays, 83
Long, Mary L., Practical deep ultraviolet—the multilayer approach, 54
Ma, William H-L, Plasma resist image stabilization technique (PRIST) update, 19
Macrander, A., Resist possibilities and limitations in ion beam lithography, 142
Maldonado, Juan R., Trends in x-ray lithography, 131
Matthews, S. M., Plasma sources for x-ray lithography, 136
McKenna, C. M., Masked ion beam lithography for submicrometer device fabrication, 168
Moreau, Wayne M., State of the art of acrylate resists: an overview of polymer structure and lithographic performance, 2
Ong, E., Multilevel Ge-Se film based resist systems, 32
Paik, Hongyul, Ion beam lithography system using a high brightness H_2^+ ion source, 152
Pease, R. F. W., Low energy electron beam lithography, 76
Polasko, K. J., Low energy electron beam lithography, 76
Rissman, Paul, High speed direct write electron beam system, 89
Seese, P. A., Intralevel hybrid resist process with submicron capability, 24
Shaver, David, New microlithographic resists, 15
Siegel, Benjamin M., Ion beam lithography system using a high brightness H_2^+ ion source, 152
Slayman, C. W., Masked ion beam lithography for submicrometer device fabrication, 168
Szilagyi, Miklos, Ion beam lithography system using a high brightness H_2^+ ion source, 152
Tai, K. L., Multilevel Ge-Se film based resist systems, 32
Tasch, Al F., Jr., Metal oxide semiconductor (MOS) technology scaling issues and their relation to submicron lithography, 68
Thomas, David R., Ion beam lithography system using a high brightness H_2^+ ion source, 152
Triplett, B. B., X-ray lithography: fabrication of masks and very large scale integrated (VLSI) devices, 118
Ura, Frank, High speed direct write electron beam system, 89
Vadimsky, R. G., Multilevel Ge-Se film based resist systems, 32
Venkatesan, T., On the mechanism of the lithographic sensitivity enhancement of obliquely deposited germanium selenide films, 163
Wagner, A., Resist possibilities and limitations in ion beam lithography, 142
Walker, C. C., Intralevel hybrid resist process with submicron capability, 24
Weber, Edward V., Shaped beams for integrated circuit fabrication, 94
White, A. D., Application of zone plates to alignment in x-ray lithography, 124
White, D. L., Application of zone plates to alignment in x-ray lithography, 124
Wilkens, B., On the mechanism of the lithographic sensitivity enhancement of obliquely deposited germanium selenide films, 163
Yau, Y. W., Low energy electron beam lithography, 76
Zinsmeister, Gilbert J., Quartz—the ultimate mask material for optical lithography?, 40

SUBJECT INDEX

Acrylate resists: an overview of polymer structure and lithographic performance, state of the art of, 2
Alignment in x-ray lithography, application of zone plates to, 124
Application of methyl α-chloroacrylate copolymers as electron sensitive positive resists, 8
Application of zone plates to alignment in x-ray lithography, 124
Arrays, electron beam testing and its application to packaging modules for very large scale integrated (VLSI) chip, 83

Beam lithography, resist possibilities and limitations in ion, 142
Beam lithography for submicrometer device fabrication, masked ion, 168
Beam lithography system using a high brightness H_2^+ ion source, ion, 152
Beam testing and its application to packaging modules for very large scale integrated (VLSI) chip arrays, electron, 83
Beam writing with a 60 keV Ga^+ probe, ion-channelling effects in scanning microscopy and ion, 158
Beams for integrated circuit fabrication, shaped, 94
Brightness H_2^+ ion source, ion beam lithography system using a high, 152

Chip arrays, electron beam testing and its application to packaging modules for very large scale integrated (VLSI), 83
Circuit fabrication, shaped beams for integrated, 94
Circuits, x-ray lithography applied to the fabrication of 1 μm *n*-channel metal oxide semiconductor (NMOS), 113
Copolymers as electron sensitive positive resists, application of methyl α-chloroacrylate, 8

Deep ultraviolet—the multilayer approach, practical, 54

Deep ultraviolet radiation, sources for the production and spectral control of, 48
Direct write electron beam system, high speed, 89

Electron beam lithography, low energy, 76
Electron beam system, high speed direct write, 89
Electron beam testing and its application to packaging modules for very large scale integrated (VLSI) chip arrays, 83
Electron sensitive positive resists, application of methyl α-chloroacrylate copolymers as, 8

Fabrication, masked ion beam lithography for submicrometer device, 168
Fabrication of masks and very large scale integrated (VLSI) devices, x-ray lithography:, 118
Fabrication of 1 μm *n*-channel metal oxide semiconductor (NMOS) circuits, x-ray lithography applied to the, 113
Fabrication, shaped beams for integrated circuit, 94
Fabrication, x-ray mask, 111
Film based resist systems, multilevel Ge-Se, 32
Films, on the mechanism of the lithographic sensitivity enhancement of obliquely deposited germanium selenide, 163

Ge-Se film based resist systems, multilevel, 32
Germanium selenide films, on the mechanism of the lithographic sensitivity enhancement or obliquely deposited, 163

H_2^+ ion source, ion beam lithography system using a high brightness, 152
High speed direct write electron beam system, 89
Hybrid resist process with submicron capability, intralevel, 24

Image stabilization technique (PRIST) update, plasma resist, 19
Integrated circuit fabrication, shaped beams for, 94
Integrated (VLSI) chip arrays, electron beam testing and its application to packaging modules for very large scale, 83
Integrated (VLSI) devices, x-ray lithography: fabrication of masks and very large scale, 118
Intralevel hybrid resist process with submicron capability, 24
Ion beam lithography, resist possibilities and limitations in, 142
Ion beam lithography for submicrometer device fabrication, masked, 168
Ion beam lithography system using a high brightness H_2^+ ion source, 152
Ion beam writing with a 60 keV Ga^+ probe, ion-channelling effects in scanning microscopy and, 158
Ion-channelling effects in scanning microscopy and ion beam writing with a 60 keV Ga^+ probe, 158
Ion source, ion beam lithography system using a high brightness H_2^+, 152

Lithographic performance, state of the art of acrylate resists: an overview of polymer structure and, 2
Lithographic sensitivity enhancement of obliquely deposited germanium selenide films, on the mechanism of the, 163
Lithography, application of zone plates to alignment in x-ray, 124
Lithography applied to the fabrication of 1 μm *n*-channel metal oxide semiconductor (NMOS) circuits, x-ray, 113
Lithography: fabrication of masks and very large scale integrated (VLSI) devices, x-ray, 118
Lithography, low energy electron beam, 76
Lithography, metal oxide semiconductor (MOS) technology scaling issues and their relation to submicron, 68
Lithography, plasma sources for x-ray, 136
Lithography?, quartz—the ultimate mask material for optical, 40
Lithography, resist possibilities and limitations in ion beam, 142
Lithography for submicrometer device fabrication, masked ion beam, 168
Lithography system using a high brightness H_2^+ ion source, ion beam, 152
Lithography: technology for the 1980s, x-ray, 100
Lithography, trends in x-ray, 131
Low energy electron beam lithography, 76

Manufacturing implications of multilevel resist processing, 59
Mask fabrication, x-ray, 111
Mask material for optical lithography?, quartz—the ultimate, 40
Masked ion beam lithography for submicrometer device fabrication, 168
Masks and very large scale integrated (VLSI) devices, x-ray lithography: fabrication of, 118
Material for optical lithography?, quartz—the ultimate mask, 40
Mechanism of the lithographic sensitivity enhancement of obliquely deposited germanium selenide films, on the, 163
Metal oxide semiconductor (MOS) technology scaling issues and their relation to submicron lithography, 68
Metal oxide semiconductor (NMOS) circuits, x-ray lithography applied to the fabrication of 1 μm *n*-channel, 113
Methyl α-chloroacrylate copolymers as electron sensitive positive resists, applications of, 8
Microlithographic resists, new, 15
Microscopy and ion beam writing with a 60 keV Ga^+ probe, ion-channelling effects in scanning, 158
Modules for very large scale integrated (VLSI) chip arrays, electron beam testing and its application to packaging, 83
Multilayer approach, practical deep ultraviolet—the, 54
Multilevel Ge-Se film based resist systems, 32
Multilevel resist processing, manufacturing implications of, 59

N-channel metal oxide semiconductor (NMOS) circuits, x-ray lithography applied to the fabrication of 1 μm, 113
New microlithographic resists, 15
1980s, x-ray lithography: technology for the, 100

Obliquely deposited germanium selenide films, on the mechanism of the lithographic sensitivity enhancement of, 163
On the mechanism of the lithographic sensitivity enhancement of obliquely deposited germanium selenide films, 163
1 μm *n*-channel metal oxide semiconductor (NMOS) circuits, x-ray lithography applied to the fabrication of, 113
Optical lithography?, quartz—the ultimate mask material for, 40
Oxide semiconductor (MOS) technology scaling issues and their relation to submicron lithography, metal, 68

Packaging modules for very large scale integrated (VLSI) chip arrays, electron beam testing and its application to, 83
Plasma resist image stabilization technique (PRIST) update, 19
Plasma sources for x-ray lithography, 136
Polymer structure and lithographic performance, state of the art of acrylate resists: an overview of, 2
Positive resists, application of methyl α-chloroacrylate copolymers as electron sensitive, 8
Practical deep ultraviolet—the multilayer approach, 54
Probe, ion-channelling effects in scanning microscopy and ion beam writing with a 60 keV Ga^+, 158
Processing, manufacturing implications of multilevel resist, 59
Production and spectral control of deep ultraviolet radiation, sources for the, 48

Quartz—the ultimate mask material for optical lithography?, 40

Radiation, sources for the production and spectral control of deep ultraviolet, 48
Resist image stabilization technique (PRIST) update, plasma, 19
Resist possibilities and limitations in ion beam lithography, 142
Resist process with submicron capability, intralevel hybrid, 24
Resist processing, manufacturing implications of multilevel, 59
Resist systems, multilevel Ge-Se film based, 32
Resists, application of methyl α-chloroacrylate copolymers as electron sensitive positive, 8
Resists, new microlithographic, 15
Resists: an overview of polymer structure and lithographic performance, state of the art of acrylate, 2

Scaling issues and their relation to submicron lithography, metal oxide semiconductor (MOS) technology, 68
Scanning microscopy and ion beam writing with a 60 keV Ga^+ probe, ion-channelling effects in, 158
Selenide films, on the mechanism of the lithographic sensitivity enhancement of obliquely deposited germanium, 163
Semiconductor (MOS) technology scaling issues and their relation to submicron lithography, metal oxide, 68
Semiconductor (NMOS) circuits, x-ray lithography applied to the fabrication of 1 μm n-channel metal oxide, 113
Shaped beams for integrated circuit fabrication, 94
60 keV Ga^+ probe, ion-channelling effects in scanning microscopy and ion beam writing with a, 158
Source, ion beam lithography system using a high brightness H_2^+ ion, 152
Sources for the production and spectral control of deep ultraviolet radiation, 48
Spectral control of deep ultraviolet radiation, sources for the production and, 48
Stabilization technique (PRIST) update, plasma resist image, 19
State of the art of acrylate resists: an overview of polymer structure and lithographic performance, 2
Structure and lithographic performance, state of the art of acrylate resists: an overview of polymer, 2
Submicrometer device fabrication, masked ion beam lithography for, 168
Submicron capability, intralevel hybrid resist process with, 24
Submicron lithography, metal oxide semiconductor (MOS) technology scaling issues and their relation to, 68

Technology for the 1980s, x-ray lithography:, 100
Technology scaling issues and their relation to submicron lithography, metal oxide semiconductor (MOS), 68
Trends in x-ray lithography, 131

Ultraviolet—the multilayer approach, practical deep, 54
Ultraviolet radiation, sources for the production and spectral control of deep, 48

Very large scale integrated (VLSI) chip arrays, electron beam testing and its application to packaging modules for, 83
Very large scale integrated (VLSI) devices, x-ray lithography: fabrication of masks and, 118

Writing with a 60 keV Ga^+ probe, ion-channelling effects in scanning microscopy and ion beam, 158

X-ray lithography, application of zone plates to alignment in, 124
X-ray lithography applied to the fabrication of 1 μm n-channel metal oxide semiconductor (NMOS) circuits, 113
X-ray lithography: fabrication of masks and very large scale integrated (VLSI) devices, 118
X-ray lithography, plasma sources for, 136
X-ray lithography: technology for the 1980s, 100
X-ray lithography, trends in, 131
X-ray mask fabrication, 111

Zone plates to alignment in x-ray lithography, application of, 124